

REMARKS

Applicant has added new claims 90 and 91. Claims 31-91 are currently pending in this application.

The Examiner indicated that claims 35, 36, 45, 46, 49, 58, 64, 65, 74, 75, 78, 79 and 86 are allowable. Applicant gratefully acknowledges the Examiner's indication of allowable subject matter.

In the Office Action, the Examiner objected to Figures 4A, 4B, 5, 6A and 6B because the word "Figur" is misspelled. Applicant is submitting 5 replacement sheets with the correct spelling of "Figure".

More substantively, the Examiner rejected independent claims 31 and 60 under 35 U.S.C. Section 103(a) over Norris (US Patent No. 5, 859, 915) in view of Park (US Patent No. 6,373,902). Applicant respectfully traverses the rejection.

On page 3 of the Office Action, the Examiner stated that "the amplitude of the carrier signal is reduced (carrier signal will inherently be reduced due to the impedances associated with the transducer)". Applicant respectfully disagrees. Since neither reference discloses the step of "reducing the amplitude of the ultrasonic carrier signal" as recited in claim 31, it appears that the Examiner's statement above is an official notice based on his own knowledge of prior art. Under MPEP Section 2144.03, Applicant respectfully requests the Examiner to produce a prior art reference that supports his view that the "carrier signal will inherently be reduced due to the impedances associated with the transducer". If the Examiner cannot produce such a reference, Applicant respectfully requests the Examiner to withdraw the rejection of claims 31 and 60.

As described in the present specification on page 6, lines 1-19, the reduction step refers to "carrier reduction" by such device as a filter, to reduce the amplitude of the **ultrasonic carrier signal** by partial carrier suppression. None of the cited references teach or suggest such a novel step.

The Norris reference discloses a method of producing audio sound. An ultrasonic wave source provides an ultrasonic frequency carrier wave 94, which is mixed with an audio signal 102. However, Norris does not teach subjecting the modulated ultrasonic signal to a

dynamic error compensation and the reduction of amplitude of the ultrasonic carrier signal at the transducer as the Examiner correctly noted.

Park is related to a digital predistortion technique for linearizing a power amplifier in a digital communication system. Accordingly, Park is not related to reproducing audio sound using **ultrasonic signals**. The term “ultrasonic” does even appear once in the document. Accordingly, there is no motivation for one skilled in the art to combine Park with Norris. As the teachings are related to a digital communication system which has completely different properties than the reproduction of audio by means of ultrasonic producing device, a person skilled in the ultrasound carrier signal art (as taught by Norris) seeking to improve the Norris teachings would not consider Park which is in an entirely different area of communication systems.

The Examiner rejected remaining claims under 35 U.S.C. Section 103(a) over two or more of the following references: Norris, Park, Selfridge (US Patent No. 6606389), Ichiyoshi (US Patent No. 5699383), Norris (US Patent No. 6359990), Hofer (US Patent No. 4949806), Norris (US Patent No. 6108427), Tanaka (US Patent No. 4823908), Elchinger (US Patent No. 4280204).

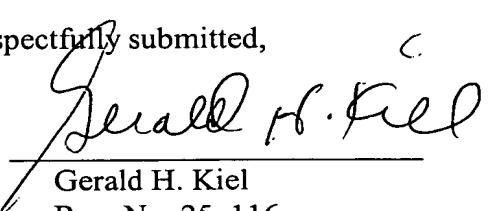
Applicant submits that all of the remaining claims are patentable by virtue of their dependency from independent claims 31 and 60.

Based upon the above amendments and remarks, Applicant respectfully requests reconsideration of this application and its earlier allowance. Should the Examiner feel that a telephone conference with Applicant's attorney would expedite the prosecution of this application, the Examiner is urged to contact him at the number indicated below.

An early and favorable action on the merits is respectfully requested.

Respectfully submitted,

By:


Gerald H. Kiel
Reg. No. 25, 116

REED SMITH LLP
599 Lexington Avenue
New York, NY 10022-7650